RESIDENCY in AEROSPACE MEDICINE UPDATE

"RAM"-ifications

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Disclaimers

- Almost all of this is personal bias, lightly tinged with facts
- Most is ‘stuff I didn’t know as a RAM’
- Official policies will be either:
  - Clearly identified
    - or -
  - Implied by pained expressions
- I think I’m funny

Overview

- Pet peeves, sprinkled throughout
- Why a residency?
- Reasons to consider in your career

Pet peeves #1 and #2

- The RAM program is ***NOT*** the ‘SMO training course’
- A resident is a ‘RAM’, a graduate is not (sorry, USAF)
  - Specialist in Aersospace Medicine (SpAM)

Topics

- Scope of practice
- Application for training
- Description of training
- Curriculum at NOMI det NAMI
- Possible changes

Aerospace Medicine Scope of practice

- Board certification in Aerospace Medicine is awarded by the American Board of Preventive Medicine (ABPM)
  - ABPM also certifies in Occupational Medicine, Public Health/General Preventive Medicine, Medical Toxicology, and Hyperbaric/Undersea Medicine
  - Preventive medicine distinguished from clinical medicine practice by emphasis on *population* health
- BONUS QUESTION: Aerospace Medicine is a recognized medical specialty in three countries. Name them.

Aerospace Medicine (AM)

- Naval Flight Surgeon = occupational medicine physician
  - Occ Med = primary care for working populations
  - Scope of practice specific to: 1) aviation industry 2) Navy / uniformed services 3) often particular platform expertise
- Board certification in AM
  - Enlarges scope to ALL aviation / space

Aerospace Medicine (AM) – what benefits can result from specialization?

- Navy specific: requirement for carrier SMO duty
- General analogy
  - Transition from ‘requesting waiver’ for airmen to ‘recommending’ or ‘granting’ (depending on service)
  - Progress from applying standards to making them
- Qualify for other operational medicine leadership roles
- Research in AM

Applying to RAM program

- Process
  - Same as application for any GME in Navy *except* clinical specialty training required
  - Applications reviewed at Joint GME Selection Board (week after Thanksgiving)
  - Selected for RAM to begin training following summer

Description of training

- All preventive medicine specialties consist of 3 years' training:
  - PGY 1 – clinical (aka, internship)
  - PGY 2 – academic (earn MPH)
  - PGY 3 – practicum (specific to area of preventive medicine)

Description of training

- NOMI det NAMI variations
  - No portion of PGY-1/internship repeated
  - PGY-2/MPH – RAM selects tasked with identifying, applying, acceptance at School of Public Health for training
  - PGY-3/practicum – centered in Pensacola (NOMI det NAMI), with a lot of TAD courses and rotations

Curriculum at NOMI det NAMI (i.e. PGY-3)

Based on Aerospace Medicine 'comptencies':

- Manage the health status of individuals working in all aspects of the aerospace environment
- Promote aerospace passenger health, safety, and comfort
- Facilitate optimum care of patients transported in the aerospace environment
- Apply human factors/ergonomic concepts to the aerospace environment
- Promote aerospace operational safety and mishap prevention
- Interpret, integrate, and/or perform aeromedical research

“Competencies”, in plain lingo

- Keep aerospace workers healthy
- Keep pax safe/healthy/comfortable
- Optimally transport patients
- Apply human factors / ergonomics
- Mishap prevention activities
- Research participation

Rotation/ course breakdown

Required curriculum breakdown – "Clinical Aerospace Medicine"

- 9 weeks general clinical aerospace medicine
  - Occupational (aviation) clinic - 3 weeks
  - Physical qualifications (1 week exams, 2 weeks waiver process 'Code 42', 1 week FAA AME course, 2 weeks FAA 'waivers')
- 3 weeks each, clinical aerospace specialties
  - Internal Med
  - Neurology
  - ENT
  - Psychiatry
  - Ophthalmology

Required curriculum breakdown – “Operational aerospace medicine”

- MEDEVAC courses (USAF and USA)
- Global Patient Movement Center rotation
- Aviation Safety Officer Course
- Radiation Health Indoctrination (Navy only)
- Global Medicine course
- Operational Aeromedical Problems conferences (USA and USN)
- National meeting (AsMA)
- Carrier Senior Medical Officer course

Required curriculum breakdown – “Human factors”

- Physiology training
- Flight training
- Online course

2008 PGY-3

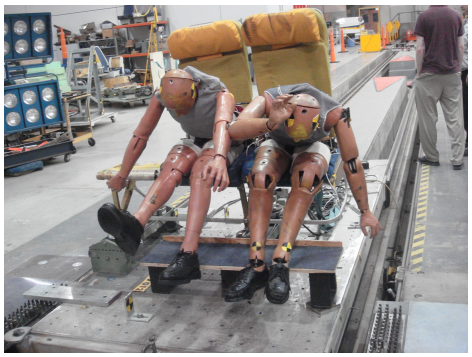
required curriculum

	Flight Training	Aerospace Ophthalmology/Optometry	Aerospace Otorhinolaryngology	Aerospace Internal Medicine	Aerospace Neurology	Aerospace Psychiatry	Aviation Clinic Practicum	Aerospace physical qualifications	Aerospace Physiology	Aviation Physical Exams (Code 26)	AsMA national scientific meeting	Aviation operational problems (Army/ PTE)	Aviation Safety Officer Course	Space Medicine (NASA Houston)	Global Patient Movement Center	Global Medicine	FAA Flight Surgeon Seminar	FAA / CAMI	Air Force MEDEVAC Course	Army MEDEVAC Course	Online human factors course	TOTALS
Manage the health status of individuals working in all aspects of the aerospace environment		3	3	3	3	3	3	2	2	1				2	2	2	1	2				32
Promote aerospace passenger health, safety, and comfort								2	2					2	2	2	1	2				13
Facilitate optimum care of patients transported in the aerospace environment									2			1			2	2			1	1		9
Apply human factors/ergonomic concepts to the aerospace environment	8								2				4	2					1	1	1	19
Promote aerospace operational safety and mishap prevention		3	3	3	3	3	3	2	2	1		1	4				1	2				31
Interpret, integrate, and/or perform aeromedical research		3	3	3	3	3					1	1										17
Weeks	8	3	3	3	3	3	3	2	2	1	1	1	4	2	2	2	1	2	1	1	2	50

AFRC
60419

HPI
F/U (2 weeks later) revealed
+ ANA 1:2560 speckled
RF, AMA,CRP,CBC normal
ESR 30
Then One Week Later:
AEROSPACE
MEDICAL
ASSOCIATION

NAVY
168



The only constant, change

A short history

THEN

- All Navy (some international) residents
- All designated Naval Flight Surgeons
- All had PGY 3 (accredited) and PGY 4 (unaccredited) rotations
- End state of training: board-eligible or certified in Prev Med (Aerospace) *AND* utilization tour as SMO on carrier

NOW

- Four resident “flavors” incoming
- PGY 4 only for *some* Army residents
- End state differ for USA and USN
  - USN same goal
  - USA trains for leadership in aviation brigades / clinical competence as board certified in Prev Med (Aerospace)

The future

- Nationally, GME for preventive medicine could change
  - Pressures on the ‘academic year’
  - ‘Clinical competence’ of graduates questions
- USN GME for AM
  - Clinical residency training no longer pre-requisite?
  - Allow AM training early in career, be carrier SMO later?
  - Allow ‘combined’ clinical/AM training?
  - Return some or all of PGY-4?

QUESTIONS